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## STUDIES OF PERUVIAN BIRDS. VI

### THE FORMICARIAN GENERA *MYRMOBORUS* AND *MYRMECIZA* IN PERU

By JOHN T. ZIMMER

The present paper forms a continuation of the series of systematic studies of Peruvian birds, of which five earlier numbers have been published.<sup>1</sup>

As before, I am greatly indebted to various other institutions which have generously loaned certain material for comparative study, as indicated in the text. In addition I am under obligations to Dr. C. E. Hellmayr for comparing certain specimens with examples in European museums, not immediately accessible to me, and for critical notes on these examples.

#### ***Myrmoborus leucophrys leucophrys* (Tschudi)**

*P(i)thys leucophrys* TSCHUDI, 1844, Arch. Naturg., X, (1), p. 278—Montaña de Vitoc, Río Tulumayo, Perú; ♂; Mus. Neuchâtel.

A careful study has been made of over seventy skins of the present species from the Andean chain of Colombia, Ecuador, Perú, and Bolivia, and of more than ninety skins from other parts of South America. While I am unable to recognize more than the typical subspecies as occurring in any part of Perú, the circumstances of its distribution are unusual and the range outside of Perú appears to be less extensive than has been supposed.

In the first place, birds from eastern Colombia (presumably also the Mérida region of Venezuela) are recognizably distinct and should bear the name *M. l. erythrophrys* (Selater). The males are not greatly different from those of typical *leucophrys* except that the gray of the occiput and nape is a degree paler and possibly also the gray of the upper and under sides of the body. The females, however, have the back less olivaceous and usually more rufescent, the top of the head decidedly clearer and more deeply rufescent (not so dull and brownish or olive-tinged on occiput and nape), and the forehead and superciliary stripe are more deeply colored and consequently less contrasted with the top of the

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<sup>1</sup>American Museum Novitates 500, 509, 523, 524, and 538.

head; the spots on the upper wing-coverts are smaller, less buffy, and often more sharply defined than in *leucophrys*.

Specimens from eastern Ecuador agree better with typical *leucophrys* than with *erythrophrys*, though they are somewhat intermediate. Throughout most of the range in Perú there is little variation and no evidence of subspecific division. One of two nearly topotypical males has the black feathers of the throat lightly tipped with gray, but the other does not. Since the same variation is shown in other parts of Perú, it is to be assumed that the feature is a more or less variable one in *leucophrys*, though it becomes more fixed in birds from farther eastward in Brazil, as will be shown later. None of the examples of *angustirostris* or *erythrophrys* has a grayish throat.

The birds from northern Bolivia are rather puzzling inasmuch as they are inclined to depart from the standards of typical *leucophrys* in a very definite direction. As will be described in detail below, there is a form inhabiting the Rio Madeira and western Matto Grosso, Brazil, in which the males have a decidedly grayish throat and a relatively pale gray ventral surface, while the females are pronouncedly rufescent brown above, with dark occiput and nape, and deep orange-ochraceous forehead and superciliaries. There is a male at hand from Reyes, Río Beni, Bolivia, which is very close to this form and a female from the "Lower Beni" which also appears to belong to it. A female from the Río Espíritu Santo is like the Beni female, but two males from the same locality are not so clearly marked. Other skins from the Río Chaparé, between the Río Espíritu Santo and Matto Grosso, are more like *leucophrys* with the exception of one female which is like the Beni female.

It seems evident, therefore, that this entire region is one of intermediacy without any clearly defined boundaries between the ranges of the Peruvian form on the west and the Rio Madeiran and Matto Grosso form on the northeast. For purposes of reference, however, the two birds from the Río Beni may be assigned to the new form described below, and the remainder to *leucophrys*. A large series from all parts of northern Bolivia undoubtedly would show clearer lines of demarcation than can be found at present.

In this extended distribution from the upper Río Suno in Ecuador to the Río Chaparé in Bolivia, the subspecies follows, with singular persistence, the upper level of the Humid Tropical Zone. In Ecuador the course is simple and easily defined as it occupies the upper reaches of the streams which flow from the eastern side of the Andes. In Perú, however, the lines appear more complicated unless one is familiar with the broken

course of the central range of the Andes in this country. From Zamora, Ecuador, the species passes into Perú near the Río Chinchipe and crosses the middle Marañón in this same region. Still keeping to the eastern side of the same mountain range, the form extends eastward to Moyobamba, and up the Huallaga Valley as far as the Tropical Zone forests go. At this point the species crosses to the upper Ucayali Valley and its tributaries where it occupies those places where the same zonal conditions are found. When these disappear in turn, the species once more apparently interrupts its range and crosses to the headwaters of the tributaries of the Madre de Dios and extends its distribution to the upper Yungas of Cochabamba on the Chimoré in Bolivia.

If these areas are carefully plotted on an accurate map, it will be seen that they follow a general southeastward trend from the Ecuadorian-Peruvian boundary and roughly mark the region in which the Amazonian tributaries leave the strictly Andean slopes or gorges. On the Amazonian plain, this subspecies is not found but is replaced there in Perú by *M. lugubris berlepschi*, of which more will be said later. The connection of *leucophrys* with the lower Tropical Zone of the Amazon is to be traced through northeastern Bolivia and the Rio Madeira by means of the new form described below.

***Myrmoborus leucophrys griseigula*, new subspecies**

TYPE from Rosarinho, Lago Sampaio, Rio Madeira (left bank), Brazil. No. 282,105, American Museum of Natural History. Adult male collected July 12, 1930, by the Olalla brothers.

DIAGNOSIS.—Similar to *M. l. angustirostris* of the Guianas and the Orinoco region of Venezuela, but males with the throat quite distinctly tipped with dark gray, more widely on the lower portion, forming a gradual transition between the blackish chin and the gray breast. Females more distinctly rufescent brown on the back (less olivaceous) than those of *angustirostris*; forehead and superciliaries deeper orange ochraceous; crown, occiput, and nape correspondingly darker and more rufescent in tone; wings and tail averaging more strongly rufescent brown; spots on upper wing-coverts averaging more deeply ochraceous and often of larger size.

RANGE.—South bank of the Amazon in the neighborhood of the left bank of the Rio Madeira; southward along the left bank of the Madeira, apparently crossing to the right bank near Calamá and continuing up the Machados into western Matto Grosso; also continuing up the Beni into northern Bolivia apparently as far as Reyes.

DESCRIPTION OF TYPE.—Forehead, anterior part of crown, and the broad superciliaries (reaching to the nape) silvery white, with shafts finely darker; posterior crown feathers with dark gray tips which widen posteriorly, making the occiput and nape rather dusky Slate-Gray,<sup>1</sup> with only the bases of the feathers whitish; back

<sup>1</sup>Names of colors when capitalized indicate direct comparison with Ridgway's 'Color Standards and Color Nomenclature.'

clear, dark Slate-Gray. Lores, auriculars, and malar region black; chin blackish; throat and sides of neck blackish with dark Slate-Gray tips and margins which give the area a bluish gray appearance that merges imperceptibly into the dark Slate-Gray of the breast and sides; belly and flanks paler, Dark Gull Gray. Wings blackish, with exposed areas and outer margins Slate-Gray; tail similar; upper wing-coverts with faint traces of pale gray tips; wing-lining grayish white. Bill and feet black (in dried skin). Wing, 71 mm.; tail, 45; exposed culmen, 16; culmen from base, 20.25; tarsus, 26.

REMARKS.—Females have the forehead deep, tawny Xanthine Orange, the color passing over the eye in a broad superciliary stripe that becomes paler over the auriculars; crown, occiput, and nape Argus Brown, with orange-rufous shafts and whitish bases; back Brussels Brown to Raw Umber; lores and auriculars black; chin, malar region, throat, breast, and belly broadly white; sides of neck dark gray, or blackish with dark gray tips; sides of breast with broad brownish olive tips and gray subterminal areas, continuous with the gray of the sides of the neck and forming a sort of lateral border to the breast (occasional specimens have the sides of the neck black, the subterminal portions of certain feathers of the sides of the breast also blackish instead of gray, and the tips gray instead of olive); flanks brownish olive; under tail-coverts white or tinged with olive buff. Exposed portions of wings Argus Brown or Argus Brown x Auburn; upper wing-coverts (except the smallest ones on the radial margin which are uniform like the back) with very conspicuous, more or less triangular, spots of deep buff at the tips of the feathers; tail Auburn, with margins somewhat brighter. Bill and feet black (in dried skins). Wing, 63–70.25 mm.; tail, 39.25–44; exposed culmen, 14.25–16; culmen from base, 18–20; tarsus, 25–27.

The series of males measures: wing, 66–71 mm.; tail, 39–47; exposed culmen, 15–16.5; culmen from base, 19–21; tarsus, 24.5–27.

Records from the Rio Juruá and the Rio Purús, Brazil, may belong with this new form as may even those from the Javari, but in the absence of skins for comparison I am unable to make a positive statement to this effect. There are no records of the species from the right bank of the lower Madeira, and a record from the left bank of the Tapajoz (Itaituba) is not to be placed with *griseigula* without examination. A male at hand from Tucunaré, Rio Jamauchim, is intermediate between *griseigula* and *angustirostris*, having the gray tips of the throat very dark though not absent. A male from Arumatheua, Rio Tocantins, has the throat black as in *angustirostris*; a female from the same locality has the head pale as in *angustirostris* (though it is a little more rufescent and less ochraceous in tone), and the back paler than in *griseigula*. It is possible that

a still different form inhabits this region, but without more material I hesitate to recognize it.

A single male from Barão Melgaço, Matto Grosso, agrees with the males of *griseigula*, and I assume that records from Calamá, Marmellos, and Jamarysinho, upper Rio Madeira, should be assigned to the same form.

#### SPECIMENS EXAMINED

*M. l. erythrophrys*.—COLOMBIA: Bogotá, 1 ♂, 1 ♀; Villavicencio, 3 ♂, 3 ♀; La Morelia, 3 ♂; Buena Vista, above Villavicencio, 5 ♂, 2 ♀; Florencia, 1 ♀.

*M. l. leucophrys*.—ECUADOR: Río Suno, above Avila, 3 ♀; below San José, 1 ♂, 1 ♀; Zamora, 7 ♂, 2 ♀. PERÚ: Santa Rosa, "Lower" (=Middle) Marañón Valley, 1 ♂; Río Seco, west of Moyobamba, 4 ♂, 3 ♀; Moyobamba, 2 ♀<sup>1</sup>; Vista Alegre, 2 ♂<sup>1</sup>; Lagarto, upper Ucayali, 1 ♂; Santa Rosa, upper Ucayali, 5 ♂, 3 ♀; Puerto Bermúdez, Río Pichis, 1 ♂<sup>1</sup>, 1 ♀<sup>1</sup>; Tulumayo, Junín, 2 ♂; Río Tavera, 3 ♂, 1 ♀; Candamo, 1 ♂, 1 ♀; Astillero, 1 ♂. BOLIVIA: Tres Arroyas, Río Espíritu Santo, 1 ♂, 1 ♀; mouth of the Río San Antonio, Río Chaparé, 1 ♂; Todos Santos, Río Chaparé, 3 ♀, 2 ♀<sup>1</sup>.

*M. l. griseigula*.—BRAZIL: Rosarinho, Rio Madeira, 12 ♂ (incl. type), 9 ♀; Santo Antonio de Guajará, 3 ♂, 3 ♀; Barão Melgaço, Matto Grosso, 1 ♂. BOLIVIA: Reyes, 1 ♂; lower Río Beni, 1 ♀.

*M. l.* subsp. ?.—BRAZIL: Arumatheua, Rio Tocantins, 1 ♂, 1 ♀; Tucunará, Rio Jamauchim, 1 ♂.

*M. l. angustirostris*.—VENEZUELA: Río Cassiquiare, El Merey, 2 ♂, 1 ♀; opposite El Merey, 15 ♂, 8 ♀; Caño Durutmoni, 1 ♂, 2 ♀; 8 miles above Río Orinoco, 1 ♂; Río Orinoco, mouth of Río Ocamo, 3 ♂; opposite mouth of Río Ocamo, 3 ♀; Mt. Duida, 2 ♂, 1 ♀; Boca de Sina, Río Cunucunuma, 3 ♂; Sacupana, 1 ♂; Suapuré, 2 ♂; Río Mato, 1 ♀; La Unión, Río Caura, 3 ♂, 3 ♀. DUTCH GUIANA, Paramaribo, 1 ♂, 1 ♀. FRENCH GUIANA: Approuague, 1 ♂, 1 ♀. BRAZIL: Serra do Lua, Rio Branco, 1 ♂.<sup>1</sup>

#### *Myrmoborus lugubris berlepschi* (Hellmayr)

*Hypocnemis lugubris berlepschi* HELLMAYR, 1910 (March), Rev. Franç. d'Orn., I, No. 11, p. 165—Nauta, Perú; ♀; Frankfort Mus. (Berlepsch coll.).

This subspecies apparently occurs on both sides of the Amazon. Two skins from Puerto Indiana, Perú, and five from the mouth of the Río Curaray, Ecuador, are not separable from three skins from Sarayacu, Río Ucayali. Six skins in the Carnegie Museum, Pittsburgh, from São Paulo de Olivença, Brazil, south bank of the Amazon, agree better with the Peruvian and Ecuadorian birds than with a series of *M. l. femininus* from the Rio Madeira, and should be referred to *berlepschi*.

The differences between *femininus* and *berlepschi* are not quite constant. The males do not appear to differ except in size. The females differ also in size and in the color of the auriculars, but one of the Ecua-

<sup>1</sup>Specimens in Field Museum of Natural History, Chicago.

dorian females of *berlepschi* has more brown on the posterior auriculars than most *femininus*, while a female of the latter form from the Rio Madeira, near Borba, has the auriculars largely dull blackish. *M. l. femininus*, it may be said, occupies both banks of the lower Rio Madeira, though I have no records from the Purús.

In Perú, *berlepschi* inhabits only the lower Tropical Zone, being replaced in the upper Tropical Zone by *M. leucophrys leucophrys* which does not descend low enough to conflict with *berlepschi*. On the lower Amazon, however, members of both groups occur at the same places—*griseigula* and *femininus* on the left bank of the lower Madeira, for example. This is important in view of the undoubtedly close relationship between *lugubris* and *leucophrys*. One male of *M. lugubris femininus* from above Borba has the silvery gray of the forehead carried backward over the eye to beyond the posterior margin of the orbit, though in reduced intensity posteriorly, and, though it does not reach the degree of development shown by the whitish superciliary of *leucophrys*, it strongly suggests that species in this particular. The male of *M. lugubris stictopterus* has the typical pattern of the *lugubris* group, but the description of the female indicates that sex to be very like some of the *leucophrys* group. The exact relationship of the two groups has yet to be worked out in detail.

Records of *berlepschi* from Perú to date have been only from Nauta and Iquitos.

There is a possibility that the subspecific name *lugubris* will have to be restricted to birds from east of the Tocantins, while Ridgway's name *hypoleuca* is applied to those from the Tapajoz, Xingú, and Jamundá. The single male at hand from Baião, Tocantins, is darker and duller gray above and on the flanks than the males from a little farther west, and has the silvery gray or white area of the forehead decidedly more restricted, duller, and less spread over the fore part of the crown or above the eyes. It more closely resembles males of *femininus* than those of so-called *lugubris* from the other regions at hand.

Hellmayr (Rev. Franç, d'Orn., I, No. 11, p. 163, 1910) says that a male from Diamantina, near Santarem, has the white of the forehead purer than it is in the type of *lugubris* or in a male from Paricatuba, Rio Tapajoz. This may indicate the constancy of such a character in the easternmost examples, but I would like to see more material before proposing the recognition of two forms in this region. Incidentally, the type locality of *lugubris*, "said to be Pará" but since questioned, may have been properly the east bank of the Tocantins which is not far

removed from Pará, though this apparently is the first definite record from that region.

#### SPECIMENS EXAMINED

*M. l. lugubris*.—BRAZIL: Baião, Rio Tocantins, 1 ♂; Tapará, Rio Xingú, 2 ♀; Villa Bella Imperatriz, 9 ♂, 5 ♀; Faro, Rio Jamundá, 2 ♂, 1 ♀.

*M. l. femininus*.—BRAZIL: Borba, Rio Madeira, 2 ♂, 1 ♀; Igarapé Auará, 8 ♂, 4 ♀; Rosarinho, 2 ♂, 1 ♀; Santo Antonio de Guajará, 1 ♀.

*M. l. stictopterus*.—BRAZIL: Manacapurú, 1 ♂.<sup>1</sup>

*M. l. berlepschi*.—PERÚ: Puerto Indiana, 1 ♂, 1 ♀; Sarayacu, Río Ucayali, 3 ♂. ECUADOR: mouth of Río Curaray, 2 ♂, 3 ♀. BRAZIL: São Paulo de Olivença, 2 ♂,<sup>1</sup> 4 ♀.<sup>1</sup>

#### *Myrmoborus myotherinus myotherinus* (Spix)

*Thamnophilus myotherinus* SPIX, 1825, 'Av. Bras.,' II, p. 30 (part; descr. ♂ only), Pl. XLII, fig. 1—no locality, Fonteboa, Brazil, suggested by Berlepsch and Hartert, 1902; type lost.

There seems to be too much individual variation in the birds of this species found south of the Amazon in Perú, Bolivia, and Brazil as far east as Teffé, to make their subdivision advisable. Females from nearest the Amazon are rather browner above than those from the Ucayali, and the specimens from the middle Marañón are, perhaps, a trifle more deeply colored than the skins from western Brazil, but there is no assured difference. Females from southeastern Perú also are brown above but some of them match the Ucayali skins. All of these are relatively pale on the under side and with pure white throats. The row of spots across the upper breast is often obsolete and furnishes no criterion of value. A number of females from Todos Santos, the Río Chimoré, and the Río Espíritu Santo in Bolivia are like the southeast-Peruvian females above but have the lower under parts somewhat brighter ochraceous and, in addition, have the throat decidedly buffy, at least on the lower portion, sometimes up to the chin. In these respects they show a decided approach toward the characters of *M. m. sororius* of the Matto Grosso region of Brazil.

The males are all very much alike. Possibly the Bolivian specimens are slightly paler on the back and flanks, but the difference is inconsiderable. If there are any forms to be recognized in this material, the west-Peruvian specimens might be called *melanosticta* and the Bolivian examples, *melanolaema*, as described long ago from these respective regions, but I do not believe that either is entitled to recognition.

According to the material at hand, *myotherinus* is found on both banks of the upper Ucayali in the neighborhood of the mouth of the

<sup>1</sup>Specimens in Carnegie Museum, Pittsburgh.

Urubamba, but, on the lower portion of the river, it is found only to the westward and is absent from the east bank and from the area between that stream and the Javari. There its place is taken by *M. melanurus*, in the account of which, given hereunder, a fuller discussion is made of the significance of this fact.

Peruvian records are all from the lower humid Tropical Zone. Aside from the localities in the subjoined list of specimens, the records are from Xeberos, Chamicuros, Chyavetas [=Chayavitas], Santa Cruz (Río Huallaga), Maynas, Chuchurras, Monterico, San Gaban, and Yahuar mayo.

***Myrmoborus myotherinus napensis*, new subspecies**

TYPE from the mouth of the Río Curaray, eastern Ecuador. No. 255,922, American Museum of Natural History. Adult female collected December 6, 1925, by Carlos Olalla and sons.

DIAGNOSIS.—Similar to *M. m. elegans* of southeastern Colombia and the region of Mt. Duida, Venezuela, but darker. Males not always clearly separable but with the abdomen averaging darker gray (less whitish) though paler than in the males of *M. m. proximus*. Females distinctly darker on the upper surface than those of *elegans*, less rufescent, more olivaceous brown; superciliary line and forehead duller; under parts averaging decidedly paler ochraceous, with the flanks browner and less rufous; tips of upper wing-coverts somewhat paler orange ochraceous and outer margin of alula white or nearly so, not so strongly ochraceous.

RANGE.—Eastern Ecuador and northeastern Perú (north of the Amazon) along the Napo and its tributaries; probably west to the Bobonaza and the lower Río Tigre; east to Pebas.

DESCRIPTION OF TYPE.—Back dark Olive x Olivaceous Black, tips of feathers a little brighter; rump more brownish; central interscapulars with a white medial area on their inner webs, making a small but distinct patch concealed in the center of the back; forehead a little paler, tinged with Buffy Brown; lores, a narrow line over the eye, the subocular region, the auriculars, and the sides of the neck black, forming a black mask on the sides of the head; upper part of the lores with whitish shaft-lines; the black mask bordered above the auriculars by an inconspicuous grayish stripe separating it from the brown occiput and nape. Chin, throat, and malar region broadly white, the feathers of the malar region with black tips, faintly suggested on part of the middle throat; feathers on the lowermost part of the throat with broad ochraceous tips and small, dusky, subterminal shaft-spots, most prominent laterally but even there not very conspicuous; breast and belly buffy ochraceous, with white subterminal areas which come very close to the tips of some of the feathers in the middle of the abdomen; sides of breast much darker, inclining toward the color of the back, though with lighter tips; sides of the belly deeper than the middle, shading into the Brussels Brown of the flanks; under tail-coverts Ochraceous-Buff. Wings and tail Fuscous-Black, with outer margins of quills dark Olive-Brown, except that the margin of the outermost primary is buffy white; greater and middle upper wing-coverts blackish, with broad tips light Cinnamon-Buff; innermost lesser series more olivaceous, without pale tips; tips of primary-coverts not pale; outer margin

of alula nearly pure white; under wing-coverts dull buffy; inner margins of remiges inconspicuously pale, grayish. Maxilla black (in dried skin); mandible whitish at base, brown at tip; feet grayish brown. Wing, 63 mm.; tail, 39; exposed culmen, 14; culmen from base, 17; tarsus, 26.

REMARKS.—Males Slate-Gray above, with a concealed patch of white on the mantle as in the females; forehead Light Gull Gray, the hue continued laterally over the eye to the nape in a pale stripe; black mask on sides of the face as in the female, reaching narrowly over the eye between the pale superciliary stripe and the orbit; chin and throat solidly black, continuous with the black mask; rest of under parts Deep Gull Gray. Wings and tail sooty black; outer margins of quills the color of the back except that the margin of the outermost primary is white; most of upper wing-coverts black with white tips; innermost lesser coverts gray without white tips; under wing-coverts pale gray. Bill entirely black; feet grayish black. Wing, 63.5–68.5 mm.; tail, 35–40; exposed culmen, 14–16; culmen from base, 18–19; tarsus, 25–27.

An immature male, taken July 16, is much like the adult males in general color but has the throat white, the posterior under parts quite pale gray, the black mask duller than in the adult, the silvery gray superciliary line and forehead less sharply defined, the remiges and rectrices brownish (but the tips of the upper wing-coverts white as in the adult). Other males, not fully adult, have the throat black but the belly paler than in the adult and somewhat tinged with brownish.

The females are somewhat variable. Some of them are more deeply colored than the type while others are paler; some have the row of dusky shaft-spots bordering the lower throat larger than in the type; the pale superciliary line is sometimes tinged with ochraceous though not so brightly as in *elegans*; the white shaft-streaks of the upper lores are often absent; the general tone of the upper parts may be lighter or darker but does not reach the rufescence of *elegans*. Wing, 62.5–67 mm.; tail, 35–39; exposed culmen, 13–15.5; culmen from base, 17–19; tarsus, 25–27.75.

Peruvian records are from Pebas, Río Tigre, and Nauta.

During the comparative studies made in the investigation of this species, several interesting facts have been discovered concerning the limits of distribution of the various forms. Although the additional localities are given in the list of specimens examined, it may be well to call attention to them here also.

*M. m. elegans* (SCLATER) reaches Brazil on the upper Rio Negro (left bank at San Gabriel) and Rio Uaupés (Tahuapunto). It also inhabits the upper Orinoco and the lowlands around Mt. Duida.

*M. m. proximus* TODD, as might be expected, continues eastward from Caviana (the type locality) to the west bank of the Madeira (Rosarinho and Santo Antonio de Guajará).

*M. m. ardesiacus* TODD extends upward along the right bank of the Rio Negro at least as far west as Tabocal (to nearly 65 degrees w. long.).

#### SPECIMENS EXAMINED

*M. m. elegans*.—COLOMBIA: La Morelia, 2 ♂, 2 ♀; Florencia, 1 ♂, 2 ♀; "Bogotá," 1 ♀. VENEZUELA: Mt. Duida and upper Orinoco, 17 ♂, 4 ♀. BRAZIL: Rio Uaupés, Tahuapunto, 1 ♂; Rio Negro, San Gabriel, 2 ♂.

*M. m. napensis*.—ECUADOR: mouth of Río Curaray, 1 ♂, 4 ♀ (incl. type); Río Suno above Avila, 3 ♂, 1 ♀; lower Río Suno, 1 ♂, 2 ♀; below San José de Sumaco, 3 ♂, 1 ♀; mouth of Lagarto Cocha, 1 ♂. PERÚ: Puerto Indiana, 4 ♂, 1 ♀; Apayacu (=Anayacu), 1 ♀.

*M. m. myotherinus*.—BRAZIL: Teffé 4 ♂; São Paulo de Olivença, 7 ♂<sup>1</sup>, 2 ♀<sup>1</sup>. PERÚ: Sarayacu, 1 ♂; Santa Rosa, upper Ucayali, 5 ♂, 1 ♀; Lagarto, upper Ucayali, 10 ♂, 5 ♀; Puerto Bermúdez, 4 ♂<sup>2</sup>, 1 ♀<sup>2</sup>; Yurimaguas, 1 ♂<sup>2</sup>, 1 ♀<sup>2</sup>; Pomará, Río Marañón, 6 ♂, 2 ♀; La Pampa, 1 ♂, 3 ♀; Río Tavera, 1 ♂, 1 ♀. BOLIVIA: Todos Santos, Cochabamba, 9 ♂, 6 ♀; mouth of Río San Antonio, Río Espíritu Santo, 1 ♂, 2 ♀; Mission San Antonio, Río Chimoré, 2 ♂, 2 ♀; Province del Sara, 3 ♂<sup>1</sup>, 1 ♀<sup>1</sup>; Río Surutú, 3 ♂<sup>1</sup>, 4 ♀<sup>1</sup>; Río Yapacani, 1 ♂<sup>1</sup>.

*M. m. sororius*.—BRAZIL: Morinha Lyra, Matto Grosso, 1 ♂; Rio Roosevelt, "Camp 14," 1 ♂; Calama, Rio Madeira, 1 ♂.

*M. m. ochrolaema*.—BRAZIL: Rio Tocantins, Baião, 3 ♂, 3 ♀; Mocajuba, 1 ♂, 2 ♀; Cametá, 1 ♂; Rio Xingú, Tapará, 3 ♂, 1 ♀; Porto do Moz, 5 ♂; Villarinho do Monte, 1 ♂; Rio Jamauchim, Tucunaré, 1 ♂, 1 ♀; Rio Tapajoz, Igarapé Brabo, 4 ♂, 6 ♀; Tauary, 3 ♂; Caxiricatuba, 2 ♂, 1 ♀; Aramanáy, 2 ♂, 2 ♀; Igarapé Amorín, 1 ♀; Boim, 1 ♀; Rio Amazonas, Villa Bella Imperatriz, 6 ♂, 5 ♀; Rio Madeira, Borba, 5 ♂, 1 ♀; Igarapé Auará, 3 ♂, 3 ♀.

*M. m. proximus*.—BRAZIL: Rio Madeira (left bank), Rosarinho, 11 ♂, 6 ♀; Santo Antonio de Guajará, 1 ♂, 1 ♀.

*M. m. ardesiacus*.—BRAZIL: Rio Negro, Igarapé Cacao Pereira, 7 ♂, 4 ♀; Santa Maria, 1 ♂; Tabocal, 1 ♀.

*M. m. incanus*.—BRAZIL: Tonantins, 2 ♂<sup>1</sup>, 2 ♀<sup>1</sup>.

#### *Myrmoborus melanurus* (Sclater and Salvin)

*Hypocnemis melanura* SCLATER AND SALVIN, 1866, P. Z. S. London, p. 186—Cashaboya (=Cashiboya) (♂) and upper Ucayali (♀); British Mus.

Two males and two females from "Sarayacu," not far from the type locality, and a female from Orosa represent this rare species in the collection before me. One of the males has a distinct white area concealed on many of the lower interscapulars, a feature not shown by the

<sup>1</sup>Specimens in Carnegie Museum, Pittsburgh.

<sup>2</sup>Specimens in Field Museum of Natural History.

other specimens at hand and apparently absent in the few previously known skins. Otherwise the series agrees with the original description.

The general similarity of this species to some of the forms of *M. myotherinus* in a great many details gives rise to a strong suspicion that *melanurus* belongs in the *myotherinus* group. This suspicion is deepened by the fact that there is nearly, if not quite, perfect geographic replacement. *M. m. myotherinus* ranges westward in Brazil from Teffé to São Paulo de Olivença, possibly to the east bank of the Javari, and, in Perú, from the west bank of the lower Ucayali westward to the middle Marañón near the mouth of the Utcubamba; only on the upper Ucayali are there positive records from the east bank of that river. On the east bank of the lower Ucayali and along the south bank of the Amazon between the Ucayali and the Javari, only *melanurus* has been found. The single conflicting circumstance is the locality "Sarayacu" on four of the specimens of *melanurus* now at hand together with a male of *myotherinus* which has the same locality and the same date as one of the *melanurus* skins. Since the collectors of these skins (Carlos Olalla and sons) worked on both sides of the Ucayali at Sarayacu and did not distinguish the specimens obtained on each bank, there is no proof that the two forms were not secured on opposite sides of the river, as I suspect to be the case. Nevertheless, until my belief is strengthened by additional records from the region, I must leave the matter in abeyance and recognize *melanurus* as a distinct species.

#### SPECIMENS EXAMINED

*M. melanurus*.—PERÚ: "Sarayacu," 2 ♂, 2 ♀; Orosa, Río Amazonas, 1 ♀.

#### *Myrmeciza lophotes* (Hellmayr and Seilern)

*Pernostola lophotes* HELLMAYR AND SEILERN, 1914 (May), Verh. Orn. Ges. Bayern, XII, Heft 1, p. 90—Río San Gaban, Carabaya, s. e. Perú; ♂; Munich Mus.

A female from Lagarto, upper Ucayali, presents the first evidence of the occurrence of this species outside of the Carabaya district of Perú whence it was described.

This specimen does not agree perfectly with the published accounts of the female, but its apparent differences are not pronounced and may be less than supposed, due to the manner of description (that of pointing out certain differences between the sexes) rather than to actual differentiating characters. Thus the pale tips on the upper wing-coverts are not strongly different in color from the subterminal parts of the feathers, though the difference that exists is rather sharply accomplished. The primary-coverts are not blackish but rufescent, except for slightly more

dusky inner webs, and the under wing-coverts are not gray but cinnameous. The most striking variance is on the throat and breast which are conspicuously marked by dusky shaft-lines, slightly wider toward the tips of the feathers. Measurements and other characters are in agreement.

Aside from the relatively great length of the crest, this species does not show any trenchant differences from the other species of *Myrmeciza* as recognized by Hellmayr (Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, (3), 1924), and need not be separated generically from the rest. The genus is extremely versatile in its characters, and I can not divide it at all satisfactorily. The genera *Myrmoderus*, *Myrmelastes*, *Myrmophylax*, and *Myrmedestes* are equally unsatisfactory and intergrade insensibly with *Myrmeciza*. Unless a genus is to be recognized for each specific group I see no course but to call all of them *Myrmeciza*. Except for the specific characters, there is no feature of any of them that does not find itself either fully developed in some other species or forming part of a chain of characters that presents every gradation from one extreme to the other. That there are differences is recognized, since there are numerous excellent species, but I do not consider the differences to be of generic value. There are also, it is true, many widely differing extremes, but I believe that they are only the unseparated peripheral developments of a single very plastic genus. To recognize a host of monotypic genera results in time in the concealment of the existing relationships. The differences are already signalized by the specific names, and I see no value in recognizing numerous genera on the characters which already must serve to differentiate the species.

***Myrmeciza hyperythra* (Sclater)**

*Thamnophilus hyperythrus* SCLATER, 1855 (April), Edinb. N. Philos. Journ. (N. Ser.), I, p. 235—Chamicuros, Perú; ♀; British Mus.

A series of forty-three specimens from nearly all parts of the range of this species shows a small amount of individual variation but nothing that can be correlated with distribution. The males are particularly uniform showing a little difference in the amount of white concentrated on the bend of the wing. The females vary in the same particular and also in the depth of ventral coloration (partly attributable to differences in age) and in the grayness or rufescence of the under tail-coverts. Some females also show a tinge of rufescence on the white spots of the lesser wing-coverts which are usually pure white.

Four skins from the mouth of the Curaray and Lagarto Cocha, on the Napo, extend the known range of the species into eastern Ecuador.

I am unable to recognize the genus *Myrmelastes* from this species which is the genotype. In structural features the bird is a large *Myrmeciza* which has no characters other than its size. The bare postocular patch is shown by *Myrmeciza exsul* and other species whose separation from *Myrmeciza* is not in question.

Records in Perú are from Chamicuros, Pebas, Samiría, Nauta, Iquitos, Santa Cruz (Rio Huallaga), Xeberos, and lower Ucayali.

#### SPECIMENS EXAMINED

*M. hyperythra*.—PERÚ: Sarayacu, 7 ♂, 5 ♀; Orosa, 1 ♀; Lagarto, upper Ucayali, 4 ♂, 5 ♀; Santa Rosa, Río Ucayali, 5 ♂, 3 ♀; mouth of Río Urubamba, 2 ♂; "Apayacu" (=Anayacu), 2 ♂, 1 ♀. BOLIVIA: lower Río Beni, 1 (♂). ECUADOR: mouth of Río Curaray, 3 ♂; mouth of Lagarto Cocha, 1 ♀. BRAZIL: Teffé, 2 ♂, 1 ♀.

#### *Myrmeciza melanocephala* (Spix)

*Thamnophilus melanocephalus* SPIX, 1825, 'Av. Bras.', II, p. 28, Pl. xxxix, fig. 1—in sylvis Parae (errore; subst. Rio Ica, n. w. Brazil; Hellmayr, 1924); ♀; Munich Mus.

A series of twenty-six skins from Colombia, Ecuador, and Perú are relatively uniform and are all to be referred to *melanocephala*, though none of them is strictly topotypical. Five of the males from Perú and Ecuador show varying amounts of white concealed on the interscapulars; ranging from a very slight trace on a Puerto Indiana skin to a large and conspicuous patch on a bird from the lower Río Suno. There are slight traces of white on the under wing-coverts of four of these skins but none on the inner margins of the remiges and none on any of the females. I suspect this to be a variational tendency in the direction of *M. goeldii* of the Rio Purús, Brazil, though I have none of this species for comparison.

There is no suggestion of unusual length of tail in the birds from Ecuador, as noted by Hellmayr (Field Mus. Nat. Hist. Publ.; Zool. Ser., XIII, pt. 3, p. 267, footnote a, 1924) for two males from Archidona and Napo Village, and also for Spix's type. Hellmayr's measurements show the males to have tails measuring 78 and 80 mm., respectively, and the female (type) to have the tail 72 mm. In the series at hand, the measurements of the tail are as follows: Colombia, (♂) 57–60.5 mm.; (♀) 54–57; Ecuador, (♂) 59–61, (♀) 55.5–60.5; Perú, north of the Amazon, (♂) 59.5–64, (♀) 56–58. Other measurements are in similar agreement. There appears to be no evidence, therefore, on which to recognize two forms on opposite sides of the Amazon.

Other records from Perú are from Pebas, Yaguas (near Pebas), Río Tigre, Santa Cruz (Huallaga), Yane Yacu (near Yurimaguas), Maynas, Cashiboya, Río Ucayali, Loretoyacu, and Río Javarri.

#### SPECIMENS EXAMINED

*M. melanoceph.*.—COLOMBIA: Florencia, Caquetá, 3 ♂, 3 ♀. ECUADOR: mouth of Río Curaray, 3 ♂, 3 ♀; lower Río Suno, 1 ♂. PERÚ: Puerto Indiana, 4 ♂, 2 ♀; Apayacu (= Anayacu), 1 ♀; Sarayacu, 1 ♂, 2 ♀; Lagarto, upper Ucayali, 1 ♂, 2 ♀.

#### ***Myrmeciza fortis fortis*** (Sclater and Salvin)

*Pernostola fortis* SCLATER AND SALVIN, 1867, P. Z. S. London, p. 980, Pl. XLV (*Pernostola funebris* on plate)—Pebas (♂ ♂) and Chyavetas [=Chayavitas] (♀), Perú; British Mus.

The arrangement of this species is very puzzling. Todd (Proc. Biol. Soc. Wash., XL, p. 169, 1927) found no differences between skins from eastern Ecuador and a long series from the Rio Purús, São Paulo de Olivença, and Caviana, Brazil. Two birds in female plumage (one sexed as male) from Tefé, now at hand, are paler on the under surface than Ecuadorian females, and northeastern Peruvian skins are intermediate, varying in both directions. Since there appears to be some variation in depth of color due to age, it is possible that part of the apparent differences here exhibited are from that cause. An extensive series from different parts of the range will be needed to determine the point. Further nomenclatorial difficulties are presented by the fact that the cotypes are from both sides of the Amazon and may have to be segregated if an additional form is separated from *fortis* in the neighborhood of the Amazon.

Birds from north of the Amazon are inclined to show a stronger tinge of grayish on the anterior part of the mantle than do those from south of the river, thus approaching *M. f. incanescens* described from Tonantins, also on the north bank, but the difference in the present series is not constant. Five skins from Astillero, southeastern Perú, present a decided extension of the known range of the species. As usual in this group, the adult males show no pronounced difference from those of *fortis*. Adult females are needed from this region for study. One specimen apparently is in female plumage with certain modifications of the coloration exhibited by females from other regions, but I judge this bird to be correctly sexed as a male and to represent an interesting stage in the development of the male plumage. Several young birds are at hand from farther north, from which the following conclusions may be drawn.

Juvenal head and body plumage probably is rather uniform fuscous black in both sexes. A female from the mouth of the Curaray, Ecuador, taken November 21, and two males from Santa Rosa, Río Ucayali, Perú, taken December 21 and 25, all show remains of this plumage on breast, sides, mantle, and head. The males are acquiring a dark rufous-brown plumage on the back, with traces of white concealed on the mantle; dark gray on breast (a little paler on the throat), with a variable amount of blackish subterminally on these feathers; the loose blackish feathers of the top of the head are being replaced by stiffer feathers which are margined and tipped with dark chestnut.

The young Astillero male, taken January 29, has the whole top of the head dark chestnut, with blackish shaft-marks, though the chestnut is sometimes reduced to narrow borders and tips. The breast has a minimum of subterminal blackish and there is no white on the mantle, but the general color is otherwise a good match for that of the young Santa Rosa males so far as they have acquired the first annual plumage. The wings and tail are dark rufous, the belly is dark gray, and the flanks are a little lighter rufous brown than the back—all much like the adult female except that the tones are distinctly darker. There is no indication of molt on this skin which appears to represent the full first annual plumage of the male, unmodified in any way.

Making allowances for probable differences in season, which are corroborated by other specimens, a slightly later stage is shown by a young male from Teffé, taken July 31. This specimen shows the forehead and crown already set with pure black but the occiput and nape are still tipped with chestnut. The anterior mantle, scapulars, and upper tail-coverts have a few dark gray feathers coming in; the under parts are molting to blackish gray; the inner four or five primaries and the upper tertials are molting into gray; the greater upper wing-coverts and a few of the median series are gray. A still later stage is shown by a male from Anayacu, taken January 22. The nape is still tipped with chestnut and a few rufous feathers remain on the scapulars, lower back, and upper tail-coverts; the upper wing-coverts are all gray; a few paler gray feathers remain on the anterior under parts; the flanks and under tail-coverts are only partially gray. The outer primaries and the inner secondaries are still rufous; the two upper tertials are gray; the lower one not yet grown out. The two outer rectrices are rufous; the others gray.

A male from Sarayacu, taken April 1, is a little farther advanced in certain particulars, but less advanced in others. Only the middle rectrices are gray; the primaries are all molted but the secondaries are less

advanced than in the Anayacu skin; the tertials are irregular, and one rufous one remains on the left side. Otherwise the plumage is more advanced than in the Anayacu skin.

A male from Orósa, taken October 7 is in practically complete adult dress with only a trace of rufous on the uropygium.

Females are fewer and most of them are adult. The youngest is the female from the mouth of the Curaray, taken November 21. Here the plumage is much like that of the adult female though a little softer, except for some fuscous black juvenal plumes on the top of the head, back, breast, sides, and throat. Even the alula has a whitish outer margin though it is not so sharply defined as in adult females. The throat is as dark as the breast.

A female from La Morelia, Colombia, taken July 21, has fewer juvenal feathers, but the throat is much whiter than the breast, as is the middle of the abdomen.

A Río Suno bird, taken March 14, is in full first-annual plumage, possibly just beginning molt, and resembles the adult females except for whiter throat and belly, darker breast, and softer plumage. A very few new feathers in the sheath on occiput and mantle are colored exactly like the areas in which they are appearing.

A bird from Teffé, Brazil, collected August 3, is sexed as a male but is exactly like an adult female from the same place except for softer plumage and is unlike the young male from Teffé. Probably it is wrongly sexed.

Of four adult males from Astillero, Perú, taken in late January and early February, three are marked as having enlarged testes, and show indications of beginning molt. Presumably this marks the close of the breeding season. The Astillero bird in first annual plumage is dated January 29. A Teffé male, collected August 3, is marked as with enlarged testes and the bird in full first annual plumage was taken the same day. These facts make it probable that the first annual plumage is worn until after the following breeding season; whether or not the birds breed in that plumage remains to be discovered. A similar conclusion was reached in the case of *Pyriglena* (Amer. Mus. Novit., No. 509, p. 8, 1931).

Also similar to the case of *Pyriglena*, is the occurrence of a remicle in some examples of both sexes of this species.

Other records of *fortis* from Perú are from Pebas and Chyavitas (cotypes), Yurimaguas, Yaguas (near Pebas), and Loretoyacu.

## SPECIMENS EXAMINED

*M. f. fortis*.—PERÚ: Apayacu (=Anayacu), 4 ♂; Orosa, 1 ♀; Sarayacu, 1 ♂, 2 ♀; Santa Rosa (Río Ucayali), 3 ♂, 1 ♀; mouth of Río Urubamba, 2 ♂; Astillero, 5 ♂. ECUADOR: Río Suno, above Avila, 3 ♂, 1 "♂" (= ♀?); lower Río Suno, 1 ♂, 2 ♀; mouth of Río Curaray, 2 ♀. COLOMBIA: La Morelia, 1 ♀. BRAZIL: Santa Isidoro, Teffé, 2 ♂, 1 ♀, 1 "♂" (= ♀?). "UPPER AMAZONS": 1 (♂).

***Myrmeciza atrothorax maynana* Taczanowski**

*Myrmeciza maynana* TACZANOWSKI, 1882, P. Z. S. London, p. 32—Yurimaguas, Perú; ♂; formerly Warsaw Mus., now lost.

A careful study of Taczanowski's original description, in the light of such material as is available to me, has led me to the conclusion that the name *maynana* is applicable solely to the birds found south of the Marañón and west of the Huallaga in Perú, of which the type specimen is the only example recorded. This conclusion has, perforce, been reached without an examination of the type, but Taczanowski has been proved to be so careful a taxonomist that great reliance may be placed in his descriptions.

Material from other parts of Perú does not fit the original description of *maynana*. Males from extreme northeastern Perú, north of the Amazon near the mouth of the Napo, are so nearly uniform black on the under side that it is impossible to distinguish the flanks and the belly under separate color terms as is done for *maynana*. On the other hand, males from east of the Huallaga and from the Ucayali have the upper parts only a little less warmly brown than in *M. a. melanurus*, and can not be described as sooty grayish, faintly washed with brownish, as is said to be the case in *maynana*. In these points, *maynana* appears to be exactly intermediate between the two divergent series at hand from opposite banks of the Amazon in eastern Perú. The upper parts must be very dark as in the birds from the mouth of the Napo; the under parts must be distinctly grayish laterally as in the birds from east of the Huallaga though there may be a slightly greater posterior extension of black on the lower belly than in that form.

Since neither extreme can be properly identified with *maynana*, it seems best to give each of them a different name, leaving *maynana* to the region west of the Huallaga, a range that is frequently inhabited by similarly distinctive forms of other species. The female remains unknown.

***Myrmeciza atrothorax tenebrosa*, new subspecies**

TYPE from Puerto Indiana, Río Amazonas (north bank), Perú, No. 231,795, American Museum of Natural History. Adult male collected July 13, 1926, by Carlos Olalla and sons.

DIAGNOSIS.—Somewhat similar to *M. a. melanurus* from south of the Amazon in Brazil, but very much darker. Males with only a faint tinge of deep brown on the anterior upper surface; lower parts almost uniform black, with the belly and flanks faintly duller than the breast but not gray or brown; white spots on upper wing-coverts minute; sides of head with only a faint grayish tinge. Female unknown.

RANGE.—Northeastern Perú north of the Amazon.

DESCRIPTION OF TYPE.—General coloration dull black, deepest on chin, throat, breast, lower back, and under tail-coverts; forehead with a very faint grayish tinge apparent also on the malar region; auriculars somewhat sootier; from crown to middle of back tinged with very dark Mummy Brown; mantle with an extensive patch of white concealed at the bases of the feathers; belly and flanks somewhat duller than the breast, with a very faint dark brown tone visible in certain lights; wings and tail blackish, their external margins deeper black; upper wing-coverts black with minute white tips on most of the feathers; under wing-coverts blackish. Bill black (in dried skin); feet pale brown. Wing, 63 mm.; tail, 52; exposed culmen, 15; culmen from base, 18; tarsus, 26.

REMARKS.—Ménégaux and Hellmayr (Bull. Soc. Philom. Paris, (Ser. 9) VIII, p. 36, 1906) discussed a bird collected by Castelnau and Deville in northeastern Perú, now in the Paris Museum ("No. 1847. 1140; no locality on the label but all the specimens preceding it in the catalogue of entry are from Pebas whence it probably also came"; Hellmayr MS.). Dr. Hellmayr has been kind enough to compare this specimen with one of my Puerto Indiana skins and pronounces it to be essentially the same in contrast to specimens from south of the Amazon. A specimen in the British Museum from Samiría is more like the south bank form described below, under which it is discussed in greater detail. It is apparent that *tenebrosa* inhabits the region from the mouth of the Napo eastward at least as far as Pebas, but its range appears to be cut off from that of typical *atrothorax* for which I have no records from west of the Rio Negro in Brazil. Similarly the range is cut off from that of *maynana*. It would be possible for *tenebrosa* to range westward from the Napo to the Chinchipe or for *maynana* to extend westward from the Huallaga and cross the middle Marañón to the Chinchipe, but there are no records nor specimens of either from these avenues of possible connection, though considerable collecting has been done there at various times. The lines of communication have yet to be discovered.

#### ***Myrmeciza atrothorax obscurata*, new subspecies**

TYPE from Lagarto, upper Ucayali, Perú. No. 239,172, American Museum of Natural History. Adult male collected March 25, 1925, by Carlos Olalla and sons.

DIAGNOSIS.—Males similar to those of *M. a. melanurus* from western Brazil, south of the Amazon, but with upper side slightly darker brown; black of breast continued much farther posteriorly over the upper abdomen; white or whitish spots

on upper wing-coverts larger. Females nearest to those of *M. a. atrothorax* but decidedly darker brown on the upper surface, more deeply rufescent on the breast, and darker, more sooty olive brown on the flanks and crissum; spots on upper wing-coverts much smaller, often minute.

RANGE.—Eastern Perú south of the Amazon and east of the Huallaga, including the Ucayali Valley southward to near the mouth of the Río Urubamba.

DESCRIPTION OF TYPE.—Top of head and mantle dark Dresden Brown; a broad white patch concealed at the bases of the interscapulars and separated from the brown tips by a black subterminal band; forehead inclined to grayish but tipped with the color of the back; rump dull Mummy Brown; upper tail-coverts blackish. Lores, a broad superciliary stripe reaching to the nape, auriculars, and malar region Neutral Gray; chin, throat, breast, and upper abdomen black; sides black with gray tips; flanks Deep Neutral Gray, with a more or less noticeable wash of Dresden Brown; under tail-coverts blackish; wings fuscous, with outer margins dark brownish; upper wing-coverts fuscous, with black subterminal bands and relatively large, angular, white spots at tips (about 1 mm. in diameter); outer margins of these coverts Dresden Brown; under wing-coverts blackish, with a white patch at base of primaries and white tips along the outer margin of the wing; tail black. Bill blackish (in dried skin); mandible slightly browner; feet dull brown. Wing, 60 mm.; tail, 55; exposed culmen, 16.5; culmen from base, 19.25; tarsus, 25.5.

REMARKS.—Top of head and mantle dark Prout's Brown x Raw Umber, with a white patch concealed at bases of interscapulars and with subterminal black as in the males; forehead inclined to grayish subterminally; rump and upper tail-coverts Sooty Black, the rump somewhat obscurely tipped with the color of the back; lores, superciliary region, auriculars, and malar region dark brownish gray. Chin whitish, posteriorly tinged with ochraceous; throat deeper, orange ochraceous; breast still deeper, Xanthine Orange x Amber Brown, becoming slightly paler on middle of belly and browner on sides; flanks sooty black, with a slight wash of dark brown; under tail-coverts more uniform, blackish. Wings fuscous black, with outer margins faintly warmer; upper wing-coverts blackish, with faintly browner outer margins and minute white spots at tips; under wing-coverts dull grayish (tinged with ochraceous and with pale subterminal spots near outer margins of wing); inner margins of remiges faintly cinnamomeous buff; tail uniform black. Maxilla black (in dried skins); mandible paler; feet pale fleshy brown. Wing, 56–59 mm.; tail, 46–48; exposed culmen, 14.25–15; culmen from base, 17.75–18; tarsus, 24.75–26.

There is a specimen in the British Museum from Chamicuros (right bank of the lower Huallaga) and one from Samiría, Perú. Through the kindness of Dr. C. E. Hellmayr and of Mr. N. B. Kinnear of the British Museum, a comparison has been made between these two skins and a paratype of the present form from Sarayacu, lower Ucayali. Mr. Kinnear

reports that the Chamicuros specimen is even browner above than the Sarayacu bird and has still larger spots on the upper wing-coverts. The Samiría specimen is said to have a browner rump and belly than the Chamicuros skin; feet in all three skins dusky. Another male from Sarayacu in the Paris Museum was compared by Dr. Hellmayr with the American Museum specimen and found to be exactly like it.

The paratype at hand from Lagarto is slightly duller above than the type but even in its extreme of variation it does not answer to the description of *maynana*.

The reference of the specimen from Samiría to this form is not to be explained so long as Samiría is taken to be a locality on the north bank of the Amazon near Pebas, as has been assumed heretofore. So far as I can discover, there is no published basis for this assumption. The Samiría skins in the British Museum were all collected by John Hauxwell and were obtained by the British Museum from the Salvin-Godman collection. The Salvin-Godman collection contained skins of other birds collected by Hauxwell at Chamicuros, Elvira, Pebas, Nauta, and other Peruvian localities besides Samiría, so that in the absence of other contributory evidence, there is some variety of geographic localities in which to search for the place in question. Nowhere on the north bank of the Amazon or Marañón can I find a "Samiría" though there is a Laguna de Samira some distance east of Pebas. However, on the south bank of the lower Marañón, east of Chamicuros and across the Marañón from a point between Elvira and Nauta, the Río Samiría (or Río Chamicuros) passes through the Laguna de Samiría and empties into the Marañón near the Isla Samiría. The juxtaposition of these various places is highly suggestive and coupled with the fact that various other birds known from Samiría are known also (if not otherwise solely) from the south banks of the Marañón and Amazon renders the probability very nearly a certainty that Hauxwell's "Samiría" is this one. If such is the case, the reference of a Samiría skin to *obscurata* instead of *tenebrosa* is perfectly regular.

Among the material examined in the present study is a male from Igarapé Brabo, left bank of the lower Rio Tapajoz, Brazil. This bird possibly ought to belong to *M. a. stictothorax*, described from Apaçy, Rio Tapajoz (I do not know which bank), but it is not to be distinguished from *melanura* though at the maximum of dorsal brightness for that form. There is no trace of whitish streaks on the throat as described for male *stictothorax*. More material is needed from the Tapajoz.

## SPECIMENS EXAMINED

*M. a. atrothorax*.—BRITISH GUIANA: Rockstone, Essequibo R., 1 ♂. FRENCH GUIANA: Cayenne, 1 ♂, 2 ♀; Tamanoir, 1 ♂; Mana, 1 ♂; Approuague, 1 ♂. VENEZUELA: Maripa, 1 ♂, 1 ♀. Boca de Sina, 1 ♂, 1 ♀; (vicinity of Mt. Duida), 30 ♂, 23 ♀. BRAZIL: San Gabriel, Rio Negro, 5 ♂, 5 ♀; Santa Maria, 2 ♂; Santa Isabel, 1 ♂, 2 ♀; Mirapinima, 1 ♀; Campos Salles, Manaus, 2 ♂, 1 ♀; Hacienda Rio Negro, Manaus, 8 ♂, 6 ♀; Faro, Rio Jamundá, 4 ♂, 1 ♀.

*M. a. melanurus*.—BRAZIL: Chapada, Matto Grosso, 2 ♂, 2 ♀; Tapirapoan, 2 ♂; Utiarity, 2 ♂, 2 ♀; Siete de Septiembre, 1 ♀; "Camp 4," Rio Roosevelt, 1 ♀; "Telegraph Line," Rio Roosevelt, 1 ♂; Campos Novas, Rio Sipituba, 1 ♂; Igarapé Brabo, Río Tapajoz (left bank), 1 ♂. BOLIVIA: Todos Santos, 4 ♂, 4 ♀; Mission San Antonio, Río Chimoré, 1 ♀; Tres Arroyos, Río Espíritu Santo, 1 ♀.

*M. a. obscurata*.—PERÚ: Lagarto, upper Ucayali, 2 ♂ (incl. type), 3 ♀; Sarayacu, 1 ♂.

*M. a. tenebrosa*.—PERÚ: Puerto Indiana, 2 ♂ (incl. type).

***Myrmeciza griseiceps* (Chapman)**

*Myrmoderus griseiceps* CHAPMAN, 1923 (August 25), Amer. Mus. Novit., No. 86, p. 6—Palambla, Dept. Piura, Perú; ♂; Amer. Mus. Nat. Hist.

This species is extremely puzzling in its affinities. I am not certain that it is as closely related to *Myrmeciza atrothorax* as its general appearance suggests, and am not sure that it is properly placed in the genus *Myrmeciza* (including *Myrmoderus*). On the other hand I am more unwilling to place it in the genus *Formicivora* (= *Neorhopias*) as has been suggested by Mr. Todd (Proc. Biol. Soc. Wash., XL, p. 172, footnote 1, 1927), although there are certain points of resemblance there also.

In various particulars, the species suggests the genus *Cercomacra*, from which it differs principally by a more slender bill, though the widely exposed position of the nostrils is quite typical of *Cercomacra*. Probably the bill alone bears as much resemblance to that of *Myrmochanes* as to that of any other genus, though it is a little more slender than the *Myrmochanes* bill.

The pattern of wing and tail is typical of various species of *Cercomacra* as are the graduated rectrices, moderately slender and long, with the end of the tail well beyond the outstretched feet. Except for the more slender bill there is nothing to argue strongly against the inclusion of this species in *Cercomacra*. Nevertheless, without perfect agreement existing between *griseiceps* and some other genus than *Myrmeciza*, I can see no advantage in removing it from the position given it by its describer.

## SPECIMENS EXAMINED

*M. griseiceps*.—PERÚ: Palambla, 6 ♂ (incl. type), 3 ♀. ECUADOR: Alamor, 2 ♂, 2 ♀; Celica, 2 ♂, 1 ♀; La Chonta, 1 ♀.

***Myrmeciza hemimelaena spodiogastra* Berlepsch and Stolzmann**

*Myrmeciza spodiogastra* BERLEPSCH AND STOLZMANN, 1894, Ibis, p. 397—Borgoña, Chanchamayo Valley, Perú; ♂; Warsaw Mus.

I have no topotypical material and have seen no specimens from other localities that answer the description of the type which is said to have the belly gray, not white, and the flanks brownish olive. Dr. Hellmayr writes me, however, that he has examined the type from Borgoña and also a male from the nearby locality, Amable Maria, and found that the two do not agree with each other; the Amable Maria male has as much white on the belly as Bolivian males of typical *hemimelaena*. This character, therefore, may be variable. The females from Borgoña are said to differ from Bolivian females by having the throat and breast paler rufescent and the under tail-coverts pale rufescent, not bright rufous brown.

A series of skins from the upper Ucayali shows the characters ascribed to the females, though not the gray belly of the males. Other differences from *hemimelaena*, not mentioned by Berlepsch and Stolzmann for the Borgoña specimens, appear in the material at hand. The males have the anterior part of the mantle more grayish or olivaceous and less rufescent than in *hemimelaena*; the gray borders of the feathers on the top of the head are somewhat clearer and paler. In addition, the females usually have the top of the head grayer and less brownish than in *hemimelaena*; the anterior part of the mantle is grayer or more olivaceous, less rufous brown; the flanks are usually grayer olive brown, less rufous; the belly is variable, sometimes whitish medially but in most examples ochraceous buff and rather more sharply defined against the deeper ochraceous color of the breast than in female *hemimelaena*. Some examples, it is true, are hardly to be distinguished, but most of them are separable on the characters mentioned.

A single female from Orosa, south bank of the Río Amazonas, below the mouth of the Ucayali, agrees fairly well with the females from the upper Ucayali, though the absence of records from the lower Ucayali is puzzling. Records from Chamicuros may well belong to the same form.

Dr. Hellmayr advises me that males from São Paulo de Olivença, Brazil, have a gray breast without white as in the type of *spodiogastra*. Thus the character which is casual in the Chanchamayo Valley appears to be constant on part of the upper Amazon. The exact significance of this remains to be determined. Possibly the São Paulo de Olivença birds ought to bear a new name, and possibly the Orosa specimen would prove to belong to such a form rather than to *spodiogastra*, but with the

evidence at hand it seems impossible to break the series from eastern and northeastern Perú at any point. Records from Monterico, Perené, and Puerto Yessup must belong with *spodiogastra* if this form is recognized.

***Myrmeciza hemimelaena hemimelaena* Sclater**

*Myrmeciza hemimelaena* SCLATER, 1857, P. Z. S. London, XXV, p. 48—Bolivia; ♂, ♀; British Mus.

Three specimens from southeastern Perú agree with examples from Bolivia rather than with upper Ucayali skins which are referred to *spodiogastra*. There is much variation, however, among the Bolivian birds. Some of the males have the white of the belly distinctly broader than others which have many of the lateral feathers of the upper abdomen with grayish tips and black subterminal areas, giving a spotted appearance to the region. One male has the auriculars gray instead of black and has paler gray than usual on the sides and upper flanks. The females also vary somewhat in the depth of color on the flanks. Peruvian specimens of both sexes are at the dark end of the series.

***Myrmeciza hemimelaena castanea*, new subspecies**

TYPE from Río Negro, about thirty-five miles west of Moyobamba, Perú; altitude 2600 feet. No. 234,644, American Museum of Natural History. Adult male collected October 5, 1925, by Harry Watkins.

DIAGNOSIS.—Darker than the other subspecies of *M. hemimelaena* known at present. Males with the deep rufous color of the back invading the nape; inner remiges with no more than a trace of pale terminal spots; paler outer margin of alula obsolete; rump and upper tail-coverts almost uniform with the back; under wing-coverts largely blackish. Females with breast as deeply colored as in *hemimelaena* but usually with the middle of the upper abdomen whitish in strong contrast; inner remiges without pale terminal spots; under wing-coverts more grayish than ochraceous; alula with reduced pale spot at tip; mandible entirely black like the maxilla; lores blackish; top of head dark olivaceous or sometimes rufescent.

RANGE.—Northern Perú south of the Marañón and west of the Huallaga.

DESCRIPTION OF TYPE.—Top of head sooty black, with very deep grayish brown tips, especially posteriorly; hind neck and upper mantle deep Sepia; lower mantle deep Chestnut x Auburn, with a concealed patch of white bordered subterminally by a broad black band; lower back and upper tail-coverts pure Auburn. Chin, throat, breast, lores, malar region, and auriculars black; tips of feathers on sides of breast gray; belly white on upper median portion, passing into Pinkish Buff towards crissum; flanks light Prout's Brown; under tail-coverts a little brighter. Tail deep Auburn x Chestnut, paler on the under side. Remiges exteriorly deep Auburn x Chestnut, without pale tips; lesser upper wing-coverts near radial margin white, near carpal margin blackish with white tips; median series blackish with pale buff tips; greater series deep Auburn with buff tips and with an indistinct blackish sub-terminal patch on outer webs; alula blackish with a tiny white spot at tip; primary-

coverts blackish, with outer margin indistinctly Auburn; under wing-coverts largely blackish, paler on under primary-coverts; inner margins of remiges pale Vinaceous-Buff. Bill (in dried skin) black; feet pale brownish. Wing, 59 mm.; tail, 40; exposed culmen, 15; culmen from base, 18; tarsus, 24.5.

REMARKS.—Females with upper surface paler than in the males. Top of head basally sooty grayish with margins Brussels Brown (to light Raw Umber); mantle Auburn to Brussels Brown x Argus Brown, with concealed patch as in the males; rump and upper tail-coverts Argus Brown (to Sudan Brown). Lores, upper malar region, and auriculars grayish; chin, throat, and breast Amber Brown x Mars Yellow; sides of breast olivaceous; middle of belly white (pale Ochraceous-Buff in one skin); flanks as dark as in the male or paler (Brussels Brown x Argus Brown); under tail-coverts light Argus Brown to Sanford's Brown x Amber Brown. White patch absent from shoulder; lesser and median upper wing-coverts blackish with buffy terminal spots (sometimes more whitish on lesser series); greater coverts as in the males or with buffy tips absent from outer feathers; remiges without pale tips; under wing-coverts with traces of buffy tips. Bill entirely black; feet yellowish. Wing, 55–57 mm.; tail, 37–40; exposed culmen, 13–15; culmen from base, 16–18; tarsus, 23.5–25.

Taczanowski's description of *hemimelaena* (Orn. Pér., II, p. 59, 1884) apparently is generalized for specimens from the Chanchamayo Valley and also northern Perú so it is impossible to glean therefrom any characteristics which the author may have noted in the northern examples from Huambo and "Xeveros" (= Jeberos). From the geographic position of these two localities, the resident form of this species is *castanea*.

#### SPECIMENS EXAMINED

*M. h. hemimelaena*.—BOLIVIA: Todos Santos, 3 ♂, 3 ♀; mouth of Río San Antonio, 2 ♂, 2 ♀; Mission San Antonio, Río Chimoré, 2 ♂, 1 ♀; Mapiri, 1 ? (♀?). PERÚ: La Pampa, 1 ♂; Río Távara, 1 ♂, 1 ♀.

*M. h. spodiogastra*.—PERÚ: Lagarto, upper Ucayali, 10 ♂, 8 ♀; Santa Rosa, upper Ucayali, 2 ♂; Orosa, 1 ♀.

*M. h. castanea*.—PERÚ: Río Negro, west of Moyobamba, 2 ♂ (incl. type), 3 ♀; Río Seco, west of Moyobamba, 1 ♀.